

Judkins (J. P.)

INTRODUCTORY LECTURE

TO A COURSE ON

ANATOMY.

DELIVERED IN CINCINNATI,
Nov. 9th, 1846.

BY J. P. JUDKINS, M. D.,
LECTURER ON DESCRIPTIVE AND SURGICAL ANATOMY, &c., &c.

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At a meeting of the Students, comprising Dr. J. P. JUDKINS' private class in Descriptive and Surgical Anatomy, held on Monday Nov. 9th, 1846, G. R. Hunt was called to the chair, and L. W. Clark appointed secretary.

After the object of the meeting was stated, on motion, it was

Resolved, That a committee of seven be appointed to wait upon Dr. Judkins, and request a copy of his Introductory Lecture, for publication. Whereupon, the Chair appointed Messrs. C. W. Wright, Wm. Hendron, O. C. Kendrick, J. A. Perrin, J. S. McIlenny, F. N. Hughs, and E. W. Steele, to constitute said committee.

On motion, the meeting adjourned.

G. R. HUNT, President:

L. W. CLARK, Secretary.

CORRESPONDENCE.

Cincinnati, Nov. 10th, 1846.

DR. J. P. JUDKINS,

Dear Sir—Your Class in Anatomy, having listened with great pleasure to your Introductory Lecture delivered on Monday, the 2d inst., do, through us, their Committee, respectfully solicit a copy for publication.

Yours truly,

| | | |
|-----------------|-----------------|--------------------------|
| C. W. WRIGHT, | J. A. PERRIN, | } Committee of Class. |
| WM. HENDRON, | J. S. McITEENY, | |
| O. C. KENDRICK, | F. N. HUGHS, | |
| E. W. STEELE. | | |

Cincinnati, Nov. 11th, 1846.

GENTLEMEN,

I am truly grateful for the manner in which the Class has been pleased to notice my Introductory Lecture. In complying with your request, I am actuated more by a desire to oblige the Class, than from any consciousness I feel, that the lecture of itself possesses any particular merit. I cannot refrain, however, from alluding with pleasure, to the conviction expressed at the concluding part of that lecture, which is already being verified. The close and inquiring attention, which characterizes the present class, is but an earnest of their future success.

Please assure the Class of my ardent wishes for their welfare,—to promote which, every effort in my humble power will be freely made.

I am, Gentlemen, with sentiments of personal regard,

Your obedient servant,

J. P. JUDKINS.

To Messrs. Perrin, Wright,

Mr. McIlenny, Hendron, Hughs,

Kendrick and Steele.

} Com'tee
of
Class.

The first part of the paper is devoted to a discussion of the
 various methods which have been proposed for the determination of
 the rate of reaction between a solid and a liquid. The methods
 which have been proposed may be divided into two classes, namely
 (1) methods in which the rate of reaction is determined by
 measuring the change in the weight of the solid, and (2) methods
 in which the rate of reaction is determined by measuring the
 change in the volume of the gas evolved. The first class of
 methods is the more accurate, but the second class is the more
 convenient. The methods of the first class are based on the
 assumption that the weight of the solid is proportional to the
 amount of solid which has reacted. The methods of the second
 class are based on the assumption that the volume of the gas
 evolved is proportional to the amount of solid which has reacted.

The second part of the paper is devoted to a discussion of the
 various factors which influence the rate of reaction between a
 solid and a liquid. The factors which influence the rate of
 reaction may be divided into two classes, namely (1) factors
 which influence the rate of reaction by influencing the
 concentration of the reactants, and (2) factors which influence
 the rate of reaction by influencing the surface area of the solid.

The third part of the paper is devoted to a discussion of the
 various factors which influence the rate of reaction between a
 solid and a liquid. The factors which influence the rate of
 reaction may be divided into two classes, namely (1) factors
 which influence the rate of reaction by influencing the
 concentration of the reactants, and (2) factors which influence
 the rate of reaction by influencing the surface area of the solid.

INTRODUCTORY LECTURE.

GENTLEMEN:—

No man can be esteemed a true and sound Philosopher—in the most extended sense of that term—having the power of defining causes and predicting results, who is not conversant, in some measure, with the universe, and every thing it contains. His knowledge should be an amalgamation of all the sciences; every object in Nature's wide domain should be familiar to his mind, together with the laws which govern, regulate, and keep in harmonious action, the wonderful mechanism of creation.

The same view, in a more humble sense, is applicable to the Physician. In the science of medicine, no man is fully qualified to deal with its powerful remedies in combating diseases who is not conversant, in some degree, with each of the various elementary departments that enter into its composition.

It may be said, that it is impossible for one man to master as much knowledge as is here required of him. But, by the aid of scientific principles, applied to the laws of system and order, this task, which at first sight appears so gigantic, is rendered comparatively easy of attainment; so that every individual, possessing intellect of an ordinary capacity, can, by diligent effort and untiring industry, in a few years, acquire the knowledge and reap the treasures of the science, even in its present advanced condition.

It must be confessed, however, that the science of medicine, viewed as a whole, made up by the labors of many thousand men, and requiring centuries to bring it to the high standard which it has attained, is well calculated to discourage and appal the novice. Yet the intricacy and complexity which it presents is more apparent than real. All of its strength and wisdom is held by one continuous chain,—the labyrinthian folds of which bewilder the student; but let him begin his work aright, and, commencing at the first link, he will be enabled to unravel and comprehend it to the end.

The conscientious man will acquire this knowledge before he harbors the idea of acting upon the principles which it alone can inculcate.

Anatomy, Physiology and Chemistry, compose the first links of this chain. These branches, aside from the fact that they form the sole foundation upon which the whole superstructure of medicine is reared, present many and fascinating inducements for their study. Chemistry exhibits simple and striking phenomena, which make

its study a charm. Anatomy, by appealing to the senses, attracts and rivets the attention, and excites the curiosity to know what wonders are contained within us. Physiology captivates the mind, by explaining "the beautiful connections and adaptations of means to ends." It presents the manifestations of life, in the circulation of the blood, the organs of which anatomy has already described; it exhibits the vital phenomena, in the respiratory process, for the purification of the blood, and of every part to which this important fluid is sent; it explains to us *sensation*, and the wonderful sympathies which this function manifests during life.—

In *digestion*, where crude matter is converted into a substance capable of being assimilated into the organized textures of the body:

In *absorption* and *sanguification*, by which the fluid prepared by digestion is taken into the circulation, and carried to every part, replacing that which is decayed, and affording material for the various organic processes which are continually going on:

In *secretion*, which separates particular substances from the blood, some of which are nutritive, or otherwise useful to the economy; whilst others are deliterious to life, and are thrown off by the lungs, liver, kidneys, &c.:

In *generation*.—This alone, so full of interest, is amply sufficient to prompt the student to undertake its study. How wonderful have been the developments made by the microscope! not only upon the spermatazoa, but especially upon the development of the embryo, and its progressive growth to maturity. The mind is filled with wonder and admiration, in viewing the *germ*, and the changes it undergoes—so simple in the beginning, yet so complex in its results. From a simple germinal cell and its membrane, every tissue of the body is seen to emanate. The muscular, mucus, and vascular organs, having a distinct point of origin, are developed in a regular determinate manner, subservient to the laws of symmetry, which preside over the formation of every part of the body.

In studying the development of *tissue*, we learn that a beautiful arrangement of cells is the first step in their organization. Many of the cells are continually undergoing changes in perfecting structure; others, more independent in their character, perform different offices in the economy, as in absorption, secretion, &c.

If the student's curiosity and spirit of investigation will carry him so far, he may trace back to the *blood* and *chyle*, and even to the food we take for nourishment, where he will find that the material which composes the structure of the body, is derived from a compound of the simple substance, called *proteine*, which is found in almost every part of the vegetable and animal fabric. This elementary substance, combined with *sulphur* and *phosphorus*, forms

the bases of the cells, and, consequently, of every tissue of the body. It is said by physiologists, that if this compound be placed under the simple stimulus of an elevated temperature, that cells will be elaborated, and arrange themselves in a regular manner, and proceed to "compose bones, muscles, nerves, tendons, ligaments, cartilages, fibrous membranes, fat, cellular tissue, &c., &c., and are endowed with properties characteristic of all these substances, which, when brought into concentaneous activity, manifest themselves in the life of the animal."

From this brief sketch, we perceive that the subject has intrinsic claims upon the attention of the student, aside from the fact, that its knowledge is indispensable to the healing art. With what diligence and ardor, then, should he enter upon its study.

In elevating the standard of medicine to the proud position it now occupies, its followers had many difficulties to overcome; false theories and absurd hypothesis assailed the science; and it met with sad reverses from time to time, growing out of the ignorance and superstition of the people. Yet, we find that its march of improvement, from its origin has been onward, regardless of all obstacles, for it was sustained by the most talented and learned of all ages,—men who gave their time and talents to the cause, and who have left rich legacies to their successors.

But it has been chiefly during the last sixty years that the several departments of medicine have been truly enriched. In all of them, discoveries have been made which have astonished the most learned,—discoveries which are ever found replete with that beauty and wisdom of adaptation which Deity has embodied in all his works.

During that time, *Chemistry* has extended her dominion over a vast field of new and rich territory: even the most unsightly and least attractive objects are made to yield up treasures of great worth and benefit to mankind. She has discovered new elementary bodies in nature, and extracted therefrom many valuable and powerful agents for medicine. Her powers have been extensively applied in the study of *Anatomy*, *Physiology* and *Pathology*, by analysing the solids and fluids of the human body, both in healthy and diseased condition. It has shown the blood peculiarly affected in *apoplexy*, *chlorosis*, *typhoid fever*, and many other affections; which, besides giving us great assistance in the diagnosis and treatment of disease, enables us to take more liberal and comprehensive views of medicine. It reconciles conflicting theories, which have been used in our explanation of the *modus operandi* of medicine and morbid agents upon the human system. By demonstrating that both the solids and fluids are involved in disease, or disorder, it demolishes the exclusive theories of the Solidists and Humoralists; and no such distinction should now be made in medicine.

There are yet some agents of disease which are so subtle in their nature as to elude the cunning and power of the Chemist. But so surprising and happy have been the results from other kinds of chemical inquiry, that we have strong grounds for believing that, ere long, even the pestiferous *malaria* itself will yield up its secrets to the skill of the analyst, and bow in subjection to the counteracting agents already known to the profession.

In the departments of *Anatomy* and *Physiology*, discoveries have been made which have startled the world, and greatly enhanced our knowledge of every function of animal and organic life. To arrive at this, the microscope has afforded invaluable assistance. By it, we are enabled to study the minute anatomy of all animal and vegetable tissues, and can even trace back, through the fossil kingdom of geology, probably, to the first point, where animal life was manifest upon earth.

From careful experiments and observations, made upon man, but more especially upon inferior animals, we have derived a large amount of valuable information.

Concerning the processes of *digestion*, of *lacteal* and *lymphatic absorption*, and of the *circulation* of the *blood*, much that is useful has been obtained. Many new and important facts have been added to our former knowledge of the selecting power of individual parts in the *nutrition* of the body. Their minute anatomical and physiological phenomena has been observed by the microscope; and likewise the disorders affecting this process, producing *inflammation*, *suppuration* and *gangrene*.

Concerning *respiration*, useful discoveries have been made in the structure and arrangement of the component parts of the lungs, and of their function, both in a physiological and chemical sense.

Of *secretion*, from glands and membranous surfaces, much that is new has been learned; and which has changed the views of the profession very materially upon this subject. This process is now seen to be carried on by innumerable secreting cells, which are continually being formed, perform the office allotted to them, and then disappear.

These cells are seen to attain their full size, "draw into themselves the matter to be eliminated from the blood, and, having attained their full term of life, burst, or liquify, so as to discharge their contents, which is the matter secreted. A new production of secondary cells is constantly going on, which fill up, and pass through the same changes as the first.

By recent discoveries, in the minute anatomy and physiology of the *nervous system*, much light has been thrown upon the science of medicine,—yielding greater facilities in the detection of disease, and enabling us to arrive at more correct views in their treatment.

By ascertaining the peculiar endowments of different parts of the

nervous system, we can explain why a diversity of symptoms may arise from, apparently, the same lesion in the nervous centre. Sympathies, of particular kinds, have been found to exist between parts heretofore unknown; and the laws of the *reflex* function of nerves, and the classification of those nerves by Dr. Marshal Hall, are great additions in this field of medical knowledge.

The discoveries and improvements in all of these departments of medical science, have been following by corresponding ones in Surgery and Practical Medicine. The first, especially, has been greatly benefitted, as is evidenced by the high standard of excellence which it now occupies. In addition to the improvements made upon all of the old operations, particularly *lithotomy*, *aneurism*, *hernia*, *amputation*, &c., many new ones have been instituted; as the Plastic operations, and many of those applied to the *eye*, *ear*, *subcutaneous parts*, *hepatic abscess*, &c.

But no part of medical enquiry has been attended with such astonishing results as those connected with the process of *Reproduction*, particularly in relation to the impregnation of the *ovum*, and the *development* of the *embryo*. By these, old theories of generation have been demolished, and new and more correct ones substituted, upon visible physiological changes. The discoveries in this department, made by Von Baer, Jones, Barry, and a host of other talented physiologists, have been truly wonderful, and replete with beauty and wisdom.

Great and important, then, we perceive, have been the additions made during the last sixty years; and they have, probably, done more towards elevating and perfecting the science than all the works of preceding centuries.

But the indication is fair, that the present age will still farther increase the splendor and glory of medicine.

France has already added much to it, by her contributions in pathology; and Germany, and England, and other parts of Europe. and our own country, in anatomy and histology. And from almost every quarter of the globe, we hear of the indefatigable labors of men who are assiduously engaged in various kinds of enquiry, upon subjects of deep interest to the profession, and, when fully understood, of lasting worth to mankind.

This truly happy state of things may be attributed more to the facilities and privileges granted for the study of anatomy, than to any other known cause. For many centuries, medicine made but little progress; its votaries were compelled to grope along in the dark; their ideas of the healing art were vague in the extreme, for their only means of acquiring correct principles—that of human dissection—was denied them.

But at this day, many nations pride themselves upon the talent and learning of their anatomists; and legislative enactments are

made to foster and improve such talent. History informs us that, in almost every civilized land under heaven, provisions have been made for the cultivation of anatomical science, and efforts used to remove the incubus, by which ignorance and superstition have so long oppressed one of the most useful and important branches of knowledge.

If we ponder for a moment upon the enlightened condition of those countries where the greatest inducements and facilities are afforded for this study, we are inclined to place the standard of anatomical knowledge in that country as an index to the prosperity and intellectual superiority of its people.

In our own free land, the liberal patronage which is extended to the arts and sciences, has elevated her to a proud pre-eminence among the nations of the earth. We trust, that not one star of her glorious constellation will ever be dimmed, and especially by the conduct of her own citizens. May her intelligence ever be triumphant over that influence by which ignorance and superstition sway the minds of men.

Yet, we are sorry to say, that in our own noble State, of which we have so many reasons to be proud, efforts have been made to abolish the study of anatomy; or, at least, to forestall or cripple the energies of those engaged in its prosecution. Should such an attempt succeed, it must abase us in the eyes of an enlightened world, and be detrimental to the interests of the State itself. Abolish the study of anatomy, and her medical schools, which are among her chief ornaments, will cease to exist; for the student of medicine will be compelled to resort to another State, in order to obtain his medical education. Such was the case in Great Britain, some forty years ago, when objections were urged, and laws enacted against the study of anatomy, students deserted their own country for the Parisian, or some of the other provincial schools. But the interests of the country at large, and the better sense of its inhabitants, soon prevailed over their foolish prejudices, and prompted them to enact more wise and wholesome laws;—so that Great Britain at this time presents some of the most popular schools in the world,

But to take a more important view of the case, our own individual interest would suffer, if the science of anatomy should cease to be cultivated among us. We would be thrown from the high position which we have attained in this branch of knowledge—back to the ignorance of the dark ages; we would retrograde at least a thousand years; yea, we would be thrown into worse than Egyptian darkness: for it is an historical fact, that during the reign of the Ptolomies of Egypt, the study of human anatomy, by dissection, was sanctioned, and provision made for its study.

It is urged, by those opposed to anatomy, that the practices resorted to for procuring material for dissection, are obnoxious, and

cannot be tolerated by the public mind. We will acknowledge that instances have occurred where such charges and censure were just. But why make the whole profession responsible for the crimes of a few? Laws can be made to meet such cases, and yet make ample provision for the study of this indispensable branch of knowledge. We are constrained to say, that the medical profession does not receive from the community that measure of justice which they truly merit.

Against the general impression, we will say, that there is not a single votary of medicine who does not respect the grief and sorrow felt by all, for the loss of a relative or friend. Nor do we believe, that there is a single instance where the true student of nature—possessing the feelings and attributes of a man—would outrage his nature, and the laws of society, by exhuming or conniving at the exhumation of the body of one, whose standing and utility, in life, justly entitled him to the love or respect of his fellow men. In this city, all private cemeteries are held sacred, and, for my part, I would sooner forego the pleasure of my favorite study entirely, than entertain for a moment the thought of disturbing such.

But, happily for science and for suffering man, provision can be made here, as it has been done in other parts of our country, for the prosecution of this all important subject, without violating the best feelings of our nature, or outraging the laws of humanity. It is a lamentable fact that, in all cities, especially in the most populous ones, that a large number of unfortunates exist, who, by vice or otherwise, voluntarily sever themselves from society, having no claim upon, yet subsisting on public charity, and yielding no benefit in return,—sustained whilst living, and buried when dead, at the public expense. Now, to a decent investigation of their bodies, after life is extinct, no just or reasonable objection can be made. The knowledge that is thus obtained, is of vital interest to all; it has an equal claim upon the profession, and on the community at large.

Still, in the minds of some, a feeling of repugnance may arise against the use of any one. We contend that this feeling is a false sympathy, and would be eradicated from their minds, if just and unprejudiced views were entertained. Reflect, for a moment, upon the rapid destiny of man's corporeal frame, after life and the soul have departed therefrom. Brief is the time before decomposition, in all its loathsome deformity, pervades the whole body; the worm banquets and gloats upon every part,—rendering the whole form more disgusting, and the cause of more repugnant feelings, than can possibly arise from a calm reflection upon the fact, that the body has been subjected to anatomical investigation, whereby a score of individuals have obtained knowledge requisite to relieve thousands of their fellow-beings from the pain and suffering entailed by accident and disease.

To those who are still desirous of degrading medicine, by depriving its members of the only available means that can qualify them for their high and responsible duties, were we to put the question, To whom would you apply for relief when suffering from a disease fatal in its tendency, or some dreadful causality which threatened you with death, or, at least, deformity for life? If they should be in the full possession of health when this question was asked of them,—if all their organs were performing their functions in a regular and wholesome manner, their answer might be reckless, and different from what we would expect. But let the shrivelled hand of disease be extended towards them, and its desolating touch be felt upon their vital organs, and, my word for it, they would call upon one who was conversant with every part of their strange and wonderful mechanism—one who had made anatomy his study.

If their destiny had placed them among the ancients, before the science of anatomy was known, (and their present efforts are culminated to place them in a similar condition,) and they had suffered from some misfortune, requiring a surgical operation, as was then performed, we think that they would be better capable of appreciating the advantages derived from anatomy.

At that time, the patient who was subjected to the amputation of limb,—besides having his mind harrassed by gloomy forebodings, caused by a knowledge of the terrible fact, that nine out of every ten cases died from such an operation,—was compelled to suffer the horrible torture of having the sensitive part of his limb divided by a knife heated to redness; and the after treatment, which consisted in passing a red hot iron over the mutilated stump, or, what is less soothing, boiling oil, pitch, or turpentine was smeared over it, in order to arrest the hemorrhage from the divided blood-vessels. Or, should he be afflicted with *strangulated hernia*, which, from correct statistics, is found to affect one-sixteenth of the human race, his death was inevitable. If he had *anuerism*, there was no hope for him; he had to die. The same, if afflicted with a *malignant tumor*, no matter where situated, *suffocation unto death*, followed the entrance of foreign bodies into the *trachea*; *stabs*, or *wounds dividing arteries* of some magnitude, *fractured skull*, *compression of the brain*, and hundreds of other accidents, to which the body is liable, resulted in death to those afflicted; for the science of anatomy, the only means of relief, was totally unknown to those making pretensions to the healing art. Nor was it until the superstition and false feeling of horror against dissection was eradicated from the minds of the people, that a knowledge of anatomy—the greatest boon vouchsafed to suffering humanity—enabled its possessor to exercise the god-like art of surgery, in the cure of all these diseases.

Now permit us, for a moment, to contrast that deplorable state of things with what is true concerning them at the present day, when

anatomy is studied. It would fill a volume to detail the benefits that mankind has received from anatomy alone. The horrible and heart-rending torture which patients formerly suffered from operations is now scarcely felt, and yet their lives are preserved.

In *amputation*, by which almost every patient, formerly, was doomed to death, after suffering unspeakable anguish, anatomy now enables the surgeon to save nine hundred and fifty out of one thousand cases.

In *strangulated hernia*,—which, among the ancients, was almost inevitably fatal,—the modern surgeon has the power of curing nearly all of his patients; and I will hazard the remark, that every case might be saved, if a surgeon possessing accurate knowledge of the anatomical history of the parts involved should be called in time, before gangrene had progressed too far.

The same relief can be afforded to persons afflicted with *aneurism*, if it be not situated upon the aorta, or large blood-vessels in the immediate neighborhood of the heart. *Suffocation* may be relieved, and death averted, by the operation of *tracheotomy*. *Tumors* and *foreign bodies*, detrimental to life, can be removed from the *nasal fossa*, *æsophagus*, *rectum*, and *genito-urinary* passages.

The triumph which surgery has obtained over affections of the *urinary organs*, is alone of sufficient importance to mankind, to take away all reproach from, and make the study of anatomy a public duty.

The *epileptic*, also, is no longer necessarily doomed to a life of suffering, gradually verging into idiocy; but many of its victims can be relieved by the hand of the surgeon from this malady, worse than death itself.

The *wry-neck*, and *club-foot*, which give such an ungainly expression, and derange the movements of the body;—*Strabismus*, which impairs the sense of vision, distorts the eye-balls, and detracts from the beauty of the countenance; can all be restored to beauty and usefulness, by a knowledge of anatomy.

In a word, anatomy gives a power to its master which is almost divine. It can make the lame walk; the blind see; and stay the hand of death. It can relieve the horrid deformity from *contracted tendons*, and restore nose, lips, cheeks, eye-lids, and almost every deprivation which afflicts the face of man.

Now, abolish its study, and the science of surgery will gradually retrograde to the position it occupied during the dark ages. For, after the present race of surgeons shall have passed away, all the works and plates upon anatomy will not inspire sufficient confidence in the surgeon to prompt him to undertake many of the important operations in his calling. It will not suffice, even if he has at some remote period witnessed the dissection of the parts involved

in the operation; he must observe it again and repeatedly. The parts are so numerous and complex in their arrangement, as to render it impossible for him to retain the knowledge of their relative position for any great period of time, without having it renewed. Abolish it, and we are arrested in the very midst of a glorious and useful career: for, besides the countless blessings already conferred, it has the power of giving us more.

Would not the glory of our State be enhanced rather, by removing obstacles from this field of scientific research, than by interposing them, to retard its progress? When we reflect upon the incalculable benefit that mankind has received from anatomy, does not the duty become imperative upon us, not only to preserve the treasures which it has bestowed, but to exert every energy towards its farther improvement? Much is known of the human body; but much remains to be learned. And no person can doubt for a moment, when he reflects upon the wonderful discoveries recently made, and that hundreds of talented men are at this moment engaged upon inquiries into such parts of the body as are yet hidden from the light of science.—that as much benefit and happiness will accrue to mankind from it as has already been obtained. Should not a common interest, then, be felt, by every member of society, for the cultivation of this branch of knowledge? Concerning the student of medicine there can be no question; he knows well, from his own good sense, and from the precepts of his teacher, that, of all the departments of medicine, anatomy presents the strongest claims to his attention. But, as we remarked at the beginning of our discourse, he also must become conversant with the other elementary branches of medical science, before he attempts to apply its principles in the cure of disease. The student who is conscious of the rectitude of his intentions can, by persevering industry, surmount all obstacles, and arrive successfully at the goal of his wishes.

We repeat, then, in reference to those whose object is the practice of medicine, that a thorough and rigid system of education in all the elementary branches, should be enforced upon them. Before they make pretensions to the cure of disease, let them first study and understand the complex structure of man's organization; learn the physiological phenomena which each organ presents, and the mutual dependence they have upon each other in the maintenance of life; make them become familiar with the properties of medicinal agents, and their peculiar action upon the system; learn the signs of disease, and the morbid anatomy of every part; make such knowledge a requisite qualification for all practitioners, and cases of suffering, and fatal effects from disease, would be less frequent throughout the land. To attain this qualification, the student must study with diligence;—there is no other means for success. At this day, there is no one book under heaven—whatever may be

said to the contrary—which has the mysterious and wonderful power of converting the ignorance of its possessor into wisdom of the most exalted nature. And the age has passed by, for men to spring—Minerva-like—from the head of some modern Jupiter, to the very acme of human knowledge.

To gain the requisite knowledge for qualifying a man to take charge of the life of his fellow man, is, then, no easy task. It is not the work of days, or months; but it requires years of close observation and laborious study. With what abhorrence, then, must we view the course of that man who arrogates to himself this knowledge, without study, and dares to trifle with the lives of deluded men, which ignorance and credulity have placed within his power. How detestable doth he appear to all honorable minds. He sacrifices honor and virtue to mercenary motives; and, to accomplish his ends, appeals to the prejudices and worst feelings of the community. He uses falsehood as a means, and grounds his hopes of success upon the ignorance and credulity of his victims.

It behooves the student of medicine to exert all of his energies in the pursuit of his calling. Let him always hold up before his mental vision, the benefits and happiness which, as a good practitioner, he will be able to confer upon his fellow-men; contrasted with the evils which would attend his career, if unqualified to practice. This would create a laudable ambition in his mind, that would stimulate him to exercise diligence and industry in the prosecution of his studies, in order to attain a high and honorable standing in his profession. But if he is indolent and careless in acquiring a knowledge of the elementary branches, disappointment and remorse will attend his professional career: for his course will be a blind one. With misty and confused views of medicine, his deductions would be uncertain and false, and his practice indiscriminate and hazardous. And if such is the truth with regard to an ignorant practitioner of medicine, how much more deplorable is it when applied to surgery? The man—and there are such men—who would have the reckless boldness to cut into living tissue, the anatomy of which he is ignorant—his practice is not only rash, but criminal. I would sooner behold the dagger of an assassin gleaming around the form of my friend, than see him subjected to a difficult operation with the surgeon's knife, in the hands of an ignorant and presumptuous man.

In concluding, gentlemen, let me cherish the conviction I feel,—that *your* object is to master the elements of your profession; and, however others may act, whose want of conscience and moral rectitude will permit them, upon superficial knowledge and daring presumption, to deal with human life,—that, for yourselves, you will use every effort in your power to acquit yourselves honorably, in the high and responsible duties which must hereafter devolve upon you.



بسم الله الرحمن الرحيم
الحمد لله رب العالمين
والصلاة والسلام على
سيدنا محمد وآله الطيبين

No B. Satch
Miford
Chir